



#### **Outline**

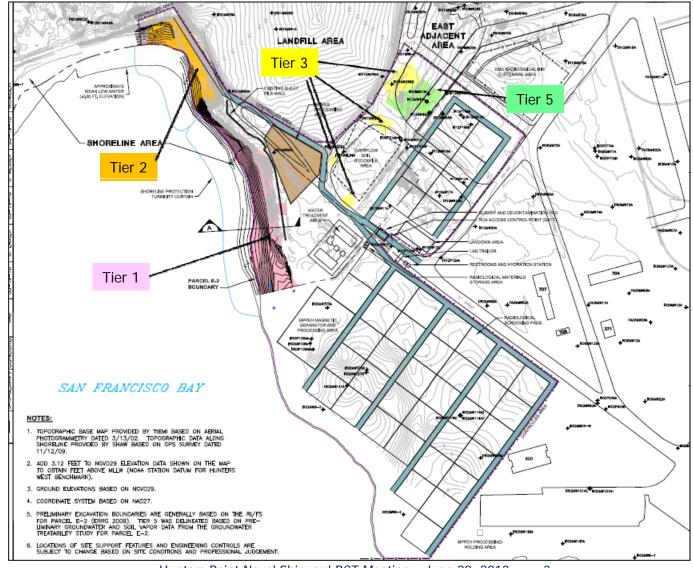


- PCB Hot Spot TCRA
  - Tier Summaries
  - What Gets Left Behind
  - What's Next
  - Schedule
- Experimental Ship Shielding Range TCRA
  - Background
  - Activities Completed to Date
  - What's Next
  - Schedule



### PCB Hot Spot Site Layout Map

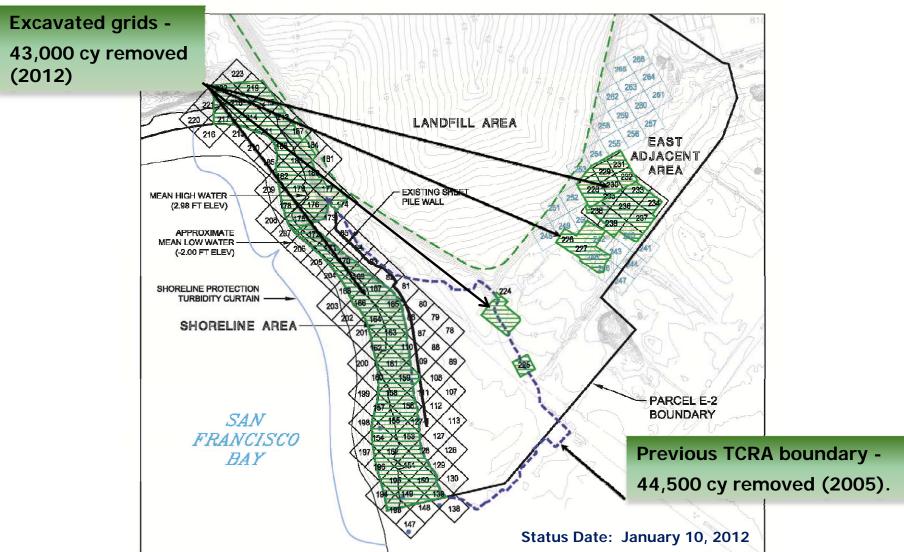






### PCB Hot Spot TCRA Progress Excavations Complete







### PCB Hot Spot - Tiers 1 and 3



- 100% of grids excavated, sampled, and backfilled
- 21,771 cy excavated from Tier 1
- 10,607 cy excavated from Tier 2
- Placement of temporary shoreline revetment complete







Armored shoreline May 2012

Hunters Point Naval Shipyard BCT Meeting – January 26, 2012\_6





- 100% of grids excavated and confirmation sampled
- Grid 231 sidewall has TPH (9,000 mg/kg) and Pb (111,000 mg/kg) exceedances remaining
- Grid 224 over-excavated to 12 feet bgs for TPH
  - Additional 850 cy removed in May
  - Post-excavation samples below PALs
- Grid 226 sidewall had TPH (4,230 and 4,010 mg/kg) exceedances
  - 4,010 mg/kg sidewall overexcavated and TPH increased (12,030, 13,030, and 13,360 mg/kg)
- Grid 227 sidewall had PCB and TPH (120/80, 260/14,200 and 50/4,700 mg/kg) exceedances
  - Additional 950 cy removed in June for both Grid 226 and 227
  - Post-excavation samples below PALs in Grid 227
- 6,400 cy excavated





Previous 8' SW sample TPH = 15,907 mg/kg

TPH PAL = 3,500 mg/kg





Southwestern section of Grid 224 had visible TPH looking east. Conducted additional over-excavations in May.

Confirmation samples show that grid meet PALs.





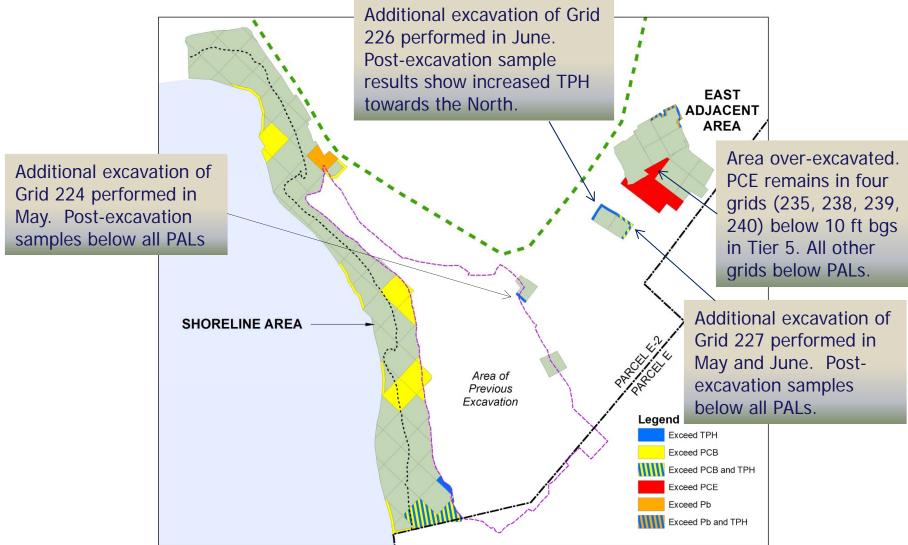
- 100% of grids (8) excavated and confirmation sampled
- 3,538 cy excavated
- VOC confirmation sampling complete, all grids below PALs at 10 ft bgs. Above PALs in Grids 235, 238, 239, and 240 (PCE) (below 10 ft bgs)

Tier	Grid	Lead (19,700)	tTPH (3,500)	tPCB (74)	1,1 Dichloroethane (2.8)	tetrachloroethene (0.48)	Trichloroethene (2.9)	vinyl chloride (0.024)
5	235-B-10	38.5	347.0502	0.1	ND	2.38	0.267	ND
5	238-B-11	1.63	9.2028J	0.002J	ND	4.61	0.0631J	ND
5	239-B-11	2.5	0.0314J	0.00436	ND	5.17	0.0845J	ND
5	240-B-11	16.9	0.0207J	0.0417	0.00395	2.32	0.395	ND



#### PCB Hot Spot - Tier 3 and 5 Summary







#### What Gets Left Behind



- Tier 1
  - TPH and PCB exceedances along Parcels E and F boundaries
- Tier 2
  - TPH and PCB exceedances along Parcel F and PCB and Pb exceedances in Grid 174 along Landfill
- Tier 3
  - Grid 231 sidewall (PALs exceeded for TPH and Pb)
  - Grid 226 sidewall (PALs exceeded for TPH)
- Tier 5
  - Grids 235, 238 (PALs exceeded for PCE >10 ft bgs)



#### **MPPEH Screening**



- MPPEH screening of soil from Tiers 1, 3, and 5
- 17 MDAS (material determined as safe) items encountered to date
- 3 wooden or chrome plated display items and one inert item (non MDAS) encountered to date
- No MEC (munitions and explosives of concern) encountered to date
- Approximately 27,200 cy processed and Third Party QA inspected and cleared
- Approximately 1,800 cy remains to be processed



#### **Radiological Screening**



- Radiological screening currently being conducted on all soils and materials
- 52 commodities encountered to date

Origin	Item Inventory Number	Item Description	Dose Rate@ 1" (uR/hr)
CTO-005 Grid 233/232	HPS-COM- 001	Metal Disc	800
CTO-5 Grid 228	HPS-COM- 002	Cooper Tube	600
CTO-5 Grid 235	HPS-COM- 003	Metal Nugget	200
CTO-5 RSY B6	HPS-COM- 004	Metal Disc	1,400
CTO-5 RSY C1	HPS-COM- 005	Metal Disc	1,000
CTO-5 RSY C3	HPS-COM- 006	Rock	800
CTO-5 RSY E8	HPS-COM- 007	Rock	100
CTO-5 RSY D2	HPS-COM- 008	Soil	240
CTO-5 RSY C4	HPS-COM- 009	Metal Plate	460
CTO-5 RSY E8	HPS-COM- 010	Hydraulic Fluid Container	1,200
CTO-5 RSY B4	HPS-COM- 011	Rock	230



### Radiological Screening (continued)



Origin	Item Inventory Number	Item Description	Dose Rate@ 1" (uR/hr)
CTO-5 RSY B3	HPS-COM- 012	Radioluminescent Disk	160
CTO-5 RSY C6	HPS-COM- 013	Radioluminescent Disk	2,000
CTO-5 RSY E3	HPS-COM- 014	Rock	470
CTO-5 RSY E3	HPS-COM- 015	Rock	500
CTO-5 RSY C4	HPS-COM- 016	Metal Strip	600
CTO-5 RSY C4	HPS-COM- 017	Metal Strip	800
CTO-5 RSY C4	HPS-COM- 018	Rock	30
CTO-5 RSY D8	HPS-COM- 019	Sound Powered Phone Jack	2,900
CTO-5 RSY D8	HPS-COM- 020	Sound Powered Phone Jack cover plate	2,500
CTO-5 RSY C4	HPS-COM- 021	Rock	70
CTO-5 RSY B3	HPS-COM- 022	<1/8" dia Rock	600
CTO-5 RSY B3	HPS-COM- 023	8 cm x 9 cm Rock	70

Origin	Item Inventory Number	Item Description	Dose Rate@ 1" (uR/hr)
CTO-5 RSY D10	HPS-COM- 024	Metal Slag, ~2"	600
CTO-5 RSY C8	HPS-COM- 025	~2" dia Radioluminescent disk	2,990
CTO-5 RSY D10	HPS-COM- 026	½" dia metal disk	1,800
CTO-5 RSY B4	HPS-COM- 027	½" dia metal disk	1,000
CTO-5 RSY A2	HPS-COM- 028	½" dia metal disk	1,400
CTO-5 RSY B3	HPS-COM- 029	Copper Tube, ~ 10 cm long.	800
CTO-5 RSY C9	HPS-COM- 030	Sound Powered Phone Jack cover plate	400
CTO-5 RSY C9	HPS-COM- 031	Sound Powered Phone Jack cover plate	1000
CTO-5 RSY C9	HPS-COM- 032	Rope, 9cm x15 cm	80
CTO-5 Grid 226	HPS-COM- 033	~2" dia Radioluminescent disk	600
CTO-5 RSY C8	HPS-COM- 034	~2" dia Radioluminescent disk	2,800
Tier 2	HPS-COM- 035	Pipe Insulation	60



### Radiological Screening (continued)



Origin	Itom	Itam Description	Dose
Origin	Item	Item Description	Dose
	Inventory		Rate@ 1"
	Number		(uR/hr)
CTO-5	HPS-	Material in Soil	150
RSY D4	COM -036		
CTO-5	HPS-COM-	~2" dia Radioluminescent disk	1,000
RSY B6	037		
CTO-5	HPS-COM-	Rock	1 400
RSY D5	038	ROCK	1,400
		-11 1 - 14/11 4/11	
CTO-5	HPS-COM-	Fiberglass Board ½" x ½"	1,250
RSY E3	039		
CTO-5	HPS-COM-	~2" dia Radioluminescent disk	2,800
RSY B1	040		
CTO-5	HPS-COM-	1/8" Material in Soil	300
RSY D2	041		
CTO-5	HPS-COM-	Multi-Pin Connector	370
RSY A3	042		
CTO-5	HPS-COM-	~2" dia Radioluminescent disk	1,100
RSY B4	043		
CTO-5	HPS-COM-	Radium Strip	600
RSY D3	044		
CTO-5	HPS-COM-	"Radieye" Screw	350
RSY D7	045		<u> </u>
CTO-5	HPS-COM-	~2" dia Radioluminescent disk	900
RSY E6	046		
CTO-5	HPS-COM-	Radium Strip	75
RSY D5	047		

	_		
Origin	Item	Item Description	Dose
	Inventory		Rate@ 1"
	Number		(uR/hr)
			(4.1.7.1.17
CTO-5	HPS-COM-	3/4" dia metal disk	600
RSY D8	048		
CTO-5	HPS-COM-	1/8" Copper Tube	500
RSY E2	049		
CTO-5	HPS-COM-	3/4" dia metal disk	280
RSY C3	050		
CTO-5	HPS-COM-	"Radieye" Toggle Switch	220
RSY C3	051		
CTO-5	HPS-COM-	1/8" Copper Tube	600
RSY C1	052		



### **PBC Hot Spot - What's Next**



- Complete MPPEH clearance and radiological screening of remaining excavated soil
- Backfilling at Tier 3
- Demobilize RSY pads
- Complete offsite T&D





### **PCB Hot Spot Schedule**

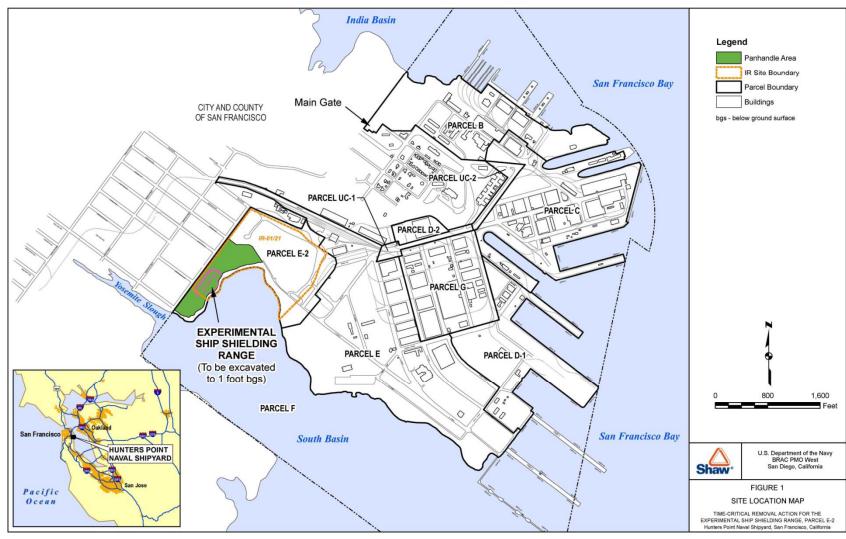


Activity	Date
Complete Hot Spots Excavation	June 2012
Complete Soil Screening and Implementing Acceptance Sampling Procedures	June - August 2012
Continue Backfill and Site Restoration	June – July 2012
Demobilize	August 2012
Submit Draft Removal Action Completion Report	December 2012



### **Experimental Ship Shielding Range**







## **Experimental Ship Shielding Range Background**



- Located on an open field area within the Panhandle Area
- Identified in Historical Radiological Assessment (HRA) as being radiologically impacted
- ROCs: 60Co, 90Sr, 137Cs, and 226Ra
- <sup>60</sup>Co is unique to the Shielding Range and the driver for this TCRA
- Radiological controls will be included for all ROCs
- Other ROCs and COCs will be addressed in the final remedial action selected in the Parcel E-2 ROD



## **Experimental Ship Shielding Range Background**



- According to HRA, radioactive material was used at the Shielding Range - conducted shielding experimentation for ships
- Former Shielding Range comprises three parts:
  - A fan-shaped, post-exposure reflection/refraction field measuring 150 feet in radius (Area A) and a berm, approximately 550 feet in length
  - A 60-foot by 50-foot site designated as Area B
  - A 60-foot by 35-foot area designated as Area C
- Little is known about the specific use of the different areas that comprised the Shielding Range



### 1961 Aerial of Project Area - Parcel E-2







# **Experimental Ship Shielding Range Site Photograph**



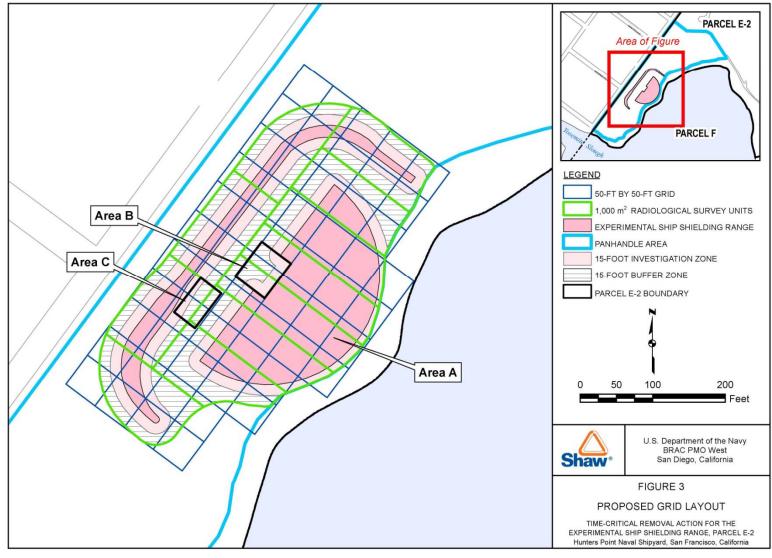


Shielding Range looking northeast, berm in background



# **Experimental Ship Shielding Range Grid Layout**







## **Experimental Ship Shielding Range Activities Accomplished to Date**



- Mobilized to site on May 29, 2012
- Performed biological survey (pedestrian avian clearance and nest survey) on May 29
- Performed geophysical survey of Shielding Range berm and fan-shaped area on June 1
- Performed topographical/land survey of area





## **Experimental Ship Shielding Range Activities Accomplished to Date**



- Laid out 50-foot by 50-foot radiological survey grid
- Commenced pre-work for gamma walkover surveys of Shielding Range and buffer zones
- Installed perimeter fence and stormwater pollution prevention controls
- Commenced relocation of wood debris pile and keel blocks to staging area located within the Panhandle Area





# **Experimental Ship Shielding Range Activities Accomplished to Date**



- Collected pre-excavation waste characterization samples
  - 1 sample collected / 500 cy
  - 7 samples collected total
- Commenced air monitoring in preparation for intrusive activities







- Performed biological survey (pedestrian avian clearance and nest survey) on May 29. Site field personnel was also trained.
- On June 7, during radiological surface screening activities, 4 Killdeer eggs were discovered within the excavation footprint.
- The Killdeer is protected under the Migratory Bird Treaty Act (MBTA), a relevant and appropriate ARAR for this TCRA.



Killdeer eggs

Killdeer parent near nest





- A 100-foot buffer zone was established around the bird nest.
- Qualified biologist was mobilized to the site on June 13 and 14 to monitor.







 On June 13, the biologist identified an active California Towhee nest with chicks, outside the excavation area and adjacent to the Site access road.



California Towhee nest with chicks



California Towhee





A 100-foot buffer zone was also established around the Towhee nest.

Approximate location of nest



Erecting the buffer zone



100-foot buffer zone





 On the morning of June 14, both nests were destroyed. Raccoon footprints were noted.



Empty Killdeer nest with some egg shells left behind

**Empty Towhee nest** 







Raccoon prints along access road near Towhee nest

Half eaten gopher snake in vicinity of Killdeer nest



## **Experimental Ship Shielding Range**What's Next



- Commence excavation
- Commence radiological processing of excavated soil
- Continue air monitoring
- Continue periodic biological monitoring
- Continue dust suppression, erosion control, and fence line inspections
- Perform Final Conditions Survey
- Waste management
- Site restoration
- Demobilization



# **Experimental Ship Shielding Range Schedule**



Activity	Date
Pre-excavation Characterization Sampling	June 2012
Shielding Range Excavation	June – July 2012
Radiological Soil Processing on RSY Pads	June – August 2012
Final Conditions Survey	August 2012
Site Restoration	August – September 2012
Demobilize	September 2012
Submit Draft Removal Action Completion Report	November 2012